

DEADMAN'S BASIN DAM

Fact Sheet

PROJECT DESCRIPTION

- ◆ Off-stream reservoir with supply canal from the Musselshell River.
- ◆ Located approximately 10 miles east of Harlowton in Wheatland Co.
- ◆ Owned by DNRC & managed by SWPB
- ◆ Operated by Deadman's Basin Water Users Association since 1959

- ◆ Project consists of:
 - ◆ Earthen Embankment Dam, 80 feet high, 775 feet long and Earthen Embankment Dike, 18-feet high and 2,950 feet long.
 - ◆ Horseshoe-shaped 300 foot-long reinforced concrete outlet tunnel, with two 60x60-inch cast iron slide gates with vertical access tower.
 - ◆ 11.5 mile supply canal (600 cfs), two delivery canals (total 12.5 miles)

- ◆ Original construction completed in 1941. The dam was raised 10 feet in 1958.
- ◆ Reservoir stores 76,900 acre-feet at normal full pool, covering 2,120 surface acres.
- ◆ Provides irrigation water for 16 farms and ranches.
- ◆ The dam is a "high hazard" structure, which means that its failure could cause loss of life. Farms and ranches, roads, bridges, and utilities are located in the flood plain.
- ◆ Melstone, Ryegate, and Roundup are dependent on the water from the reservoir for their municipal water systems.
- ◆ 490 families, including ranchers, farmers, and residents of small towns, directly depend on receiving their contracted water shares from the Deadman's Basin Water Project.

PROJECT DEFICIENCIES

- ◆ Excessive seepage and uplift pressures requires the installation of a drain system and toe berm.
- ◆ Requires extension of outlet structure to accommodate toe berm.

PROPOSED REHABILITATION

- ◆ Remove the old outlet structure, extend the conduit, and install a drainage system along side the new conduit extension
- ◆ Build a new energy dissipating outlet
- ◆ Construct a 15 foot high toe berm with a filter blanket drain

Estimated Project Cost: \$1,077,852



Inlet plugged with sediments



Inlet and upstream face



Low Level Outlet



Low Level Outlet Seepage

